Appl. No. 09/587,932
Amdt. dated June 14, 2004
Reply to Office Action of March 15, 2004

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**Amendments to the Claims:**

Claims 1-23 are pending in the application. This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1. (Currently amended) A method of providing data, said method comprising:

storing a first set of encryption data associated with a first data stream;

encrypting a first data stream having said first-level-of-encryption;
sending said first data stream to a destination device for decryption;

storing a second set of encryption data associated with a second data stream;

encrypting the second data stream having a second-level-of-encryption, said first-level-of-encryption being different from said second-level-of-encryption; ~~and~~

utilizing a common memory to encrypt said first data stream at said first-level-of-encryption and to encrypt said second data stream at said second-level-of-encryption;

sending said second data stream to said destination device for decryption.

2. (original) The method as described in claim 1 wherein said first set of encryption data comprises at least one encryption key.

3. (Currently amended) The method as described in claim 1 ~~and further comprising transmitting said first and second data streams to a set-top box.~~ wherein said destination device comprises a set-top box.

4. (original) The method as described in claim 3 and further comprising storing a plurality of decryption algorithms at said set-top box.

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5. (original)    The method as described in claim 1 and further comprising:

transmitting a first number of services in said first data stream; and

transmitting a second number of services in said second data stream, said second number of services being different from said first number of services.

6. (original)    The method as described in claim 1 wherein said first-level of encryption utilizes the Data Encryption Standard and wherein said second-level-of-encryption utilizes an encryption algorithm different from said Data Encryption Standard.

7. (original)    The method as described in claim 1 and further comprising:

decrypting said first data stream at said set-top box; and

decrypting said second data stream at said set-top box.

8. (original)    The method as described in claim 1 and further comprising storing a portion of said first set of encryption data in RAM.

9. (original)    The method as described in claim 1 and further comprising storing a portion of said first set of encryption data in a register of a microprocessor.

10. (Currently amended)    A cryptography circuit comprising:

a memory operable to store a first set of encryption data for a an incoming data stream;

a reconfiguration circuit operable to reconfigure said memory such that said memory stores a second set of encryption data different from said first set of encryption data for use in encrypting said incoming data stream.

11. (original)  The cryptography circuit as described in claim 10 wherein said reconfiguration circuit is triggered by a change in the encryption of said data stream.

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12. (original)   The cryptography circuit as described in claim 10 and further comprising a memory to store a plurality of encryption algorithms.

13. (original)   The cryptography circuit as described in claim 10 wherein said reconfiguration circuit comprises:

code means for storing a second set of encryption data; and

code means for implementing an encryption algorithm.

14. (Currently amended)      A method of allocating resources comprising:

allocating a memory with a first set of decryption data corresponding to a first-level-of-encryption;

receiving via an originating source a first data stream having said first-level-of-encryption;

re-allocating said memory with a second set of decryption data corresponding to a second-level-of-encryption said second-level-of-encryption being different from said first-level-of-encryption of said first data stream; and

receiving via said originating source a second data stream having said second-level-of-encryption.

15. (original)   The method as described in claim 14 and further comprising detecting that said second-level-of-encryption of said second data stream is different from said first-level-of-encryption of said first data stream.

16. (original)   The method as described in claim 14 wherein said allocating a memory with a first set of decryption data corresponding to said first-level-of-encryption comprises storing decryption key data.

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17. (original)   The method as described in claim 16 wherein said re-allocating said memory with a second set of decryption data corresponding to said second-level-of-encryption comprises storing decryption key data.

18. (original)   The method as described in claim 14 wherein said first data stream is comprised of a plurality of different services, each service encrypted at the same level of encryption.

19. (currently amended)     An integrated circuit comprising:

an input to receive data;

a memory to store a first set of cryptographic data;

a processor operable to re-allocate said memory so as to store a second set of cryptographic data;

wherein said processor is operable to implement a plurality of cryptographic algorithms;

a transmitter operable to transmit a data stream to a destination device, wherein said data stream comprises data encrypted according to a first cryptographic algorithm of said plurality of cryptographic algorithms and data encrypted according to a second cryptographic algorithm of said cryptographic algorithms.

20. (original)   The integrated circuit as described in claim 19 wherein said cryptographic algorithms are encryption algorithms.

21. (Currently amended)     An integrated circuit comprising:

an input to receive an incoming data stream;

a memory to store a first set of cryptographic data;

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a processor operable to re-allocate said memory so as to store a second set of cryptographic data;

wherein said processor is operable to implement a plurality of cryptographic algorithms so as to decrypt a first portion of said incoming data stream according to a first cryptographic algorithm of said plurality of cryptographic algorithms and so as to decrypt a second portion of said incoming data stream according to a second cryptographic algorithm of said plurality of cryptographic algorithms.

~~The integrated circuit as described in claim 19 wherein said cryptographic algorithms are decryption algorithms.~~

22. (Currently amended)    A set-top box apparatus comprising:

an input to receive an incoming data stream;

a processor coupled to said input;

a memory coupled to said processor configured to store a first set of decryption data;

code for use by said processor that allows said processor to reconfigure said memory with a second set of decryption data;

code for use by said processor that allows said processor to utilize said first set of decryption data to decrypt a first portion of said incoming data stream; and

code for use by said processor to utilize said second set of decryption data to decrypt a second portion of said incoming data stream.

23. (original)   A method of providing encrypted data, said method comprising:

providing a first set of services;

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encrypting at least one of said services from said first set of services at a first-level-of-encryption;

combining the first set of services into a first data stream;

transmitting from a headend to a set-top box said first data stream;

storing a first set of decryption keys associated with said first-level-of-encryption in an integrated circuit in said set-top box, said first set of keys corresponding to the decryption algorithm for the first-level-of-encryption;

decrypting said first data stream;

providing a second set of services;

encrypting at least one of said services from said second set of services with an encryption algorithm different from said first-level-of-encryption;

combining the second set of services into a second data stream;

formatting said second data stream;

transmitting from said headend to said set-top box said second data stream;

storing a second set of decryption keys associated with said second-level-of-encryption in said integrated circuit in said set-top box;

storing a plurality of decryption algorithms in said set-top box; and

decrypting said second data stream.